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(54) **METHOD AND SYSTEM FOR EXPLORING THE ASSOCIATIONS BETWEEN DRUG SIDE-EFFECTS AND THERAPEUTIC INDICATIONS**

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    G06N 5/02   (2006.01)
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    CPC *G06N 5/02* (2013.01); *G06F 19/704* (2013.01); *G06F 19/707* (2013.01); *G06F 19/708* (2013.01)

(58) **Field of Classification Search**
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(57) **ABSTRACT**

A system and method for analyzing chemical data including a processor and one or more classifiers, stored in memory and coupled to the processor, which further includes an indication predictive module configured to predict whether a given chemical treats a particular indication or not and a side effect predictive module configured to predict whether a given chemical causes a side-effect or not. A correlation engine is configured to determine one or more correlations between one or more indications and one or more side effects for the given chemical and a visualization tool is configured to analyze the one or more correlations and to output results of the analysis.

14 Claims, 5 Drawing Sheets